

## REMARKS

Claims 1-3, 5, 7, 9-14, 16-18, 21-26 are pending. Claims 19, 20, 28, 29, 31-32 have been withdrawn. Claims 4, 6, 8, 15, 27 and 30 has been canceled.

**Claims 1-3, 5,7,9-14, 16-18 and 21-23 stand rejected under 35 USC 103 as being unpatentable over US Published Patent Application 2002/0049449 (“Bhatnagar”) in view of US Patent No. 4,645,488 (“Matukas”).**

**In the Office Action of October 6, 2008,** the Examiner found that Bhatnagar discloses all the elements of the invention, except for the delivery tube 42 being flexible. The Examiner then finds that Matukas teaches a flexible syringe 10 with a flexible piston or plunger to reduce the frictional resistance between the material and the wall of the syringe or delivery tube, and that it would have been obvious to have provided a flexible syringe with a flexible plunger, as taught by Matukas, in the Bhatnagar system in order to reduce the frictional resistance between the material and the wall of the syringe.

**In the September 2009 Amendment,** Applicants respectfully traversed on two grounds. First, the Bhatnagar cannula identified by the Examiner as element 44 is not adapted to be received in a vertebral body. Second, neither reference discloses a flexible plunger.

### **Cannula**

The “cannula” identified by the Examiner as element 44 is not adapted to be seated in a vertebral body. Rather, it is flexible and adapted to be received in a rigid device (12?) adapted to be received a bone.

### **Flexible Plunger**

Applicants submit that Bhatanagar does not disclose a flexible plunger. Matukas does not cure this deficiency.

Applicants have repeatedly stated that Matukas does not disclose a flexible plunger. Matukas teaches a nylon plunger. In previous Office Actions, Applicants argued that the mere fact that the plunger rod can be made of nylon does not mean that the plunger rod must be flexible. Nylon components can be fabricated in ways that them very rigid. For example, US Patent Number 6,796,617 discloses a perdurable composite roller skating cylinder and methodology of making the same from low cost readily available commoditized commercial parts. In the in-line roller skating embodiment the cylinder will provide the combine features of long wear life, shock absorption and smooth running through the use of a rigid nylon core or equivalent and an appropriate longitudinal section of flexible polyurethane tubing or equivalent. Similarly, US Patent Number 4,176,816 discloses rigid nylon articles provided with a chamber therewithin and water is sealed within the chamber. Therefore, Matukas does not disclose a flexible plunger rod.

A proper use of Matukas would merely be that of making flexible the syringe 42 and the piston (distal portion) of the plunger of Bhatnagar. However, this does not cure the prime deficiencies of Bhatanagar, namely, its lack of a plunger having a flexible proximal portion.

In the Nov. 29, 2007 Office Action, the Examiner's response regarding Matukas was as follows:

Matukas teaches a plunger 14 made of nylon or a "flexible material". It is the Examiner's position that when a plunger or rod is made of nylon, it is capable of being bent or flexed. (Source: The American Heritage<sup>R</sup> Dictionary of the English Language: Fourth Edition, 2000) For example, Hayakawa et al. (see col. 7, lines 51-62) discloses a push rod or plunger 31 made of a flexible material such as nylon.

Applicants respectfully traverse. Nowhere does Matukas say the plunger is made of a "flexible material". Applicants respectfully request the Examiner to point to the column and lines wherein Matukas states that the plunger is made of a "flexible material".

Applicants respectfully submit that the Examiner's position that "when a plunger or rod is made of nylon, it is capable of being bent or flexed", is contradicted by the evidence. Applicants have provided instances in US Patents in which nylon is cited as a

rigid material. Merely because other patents recite nylon as being flexible does not mean that nylon materials are inherently flexible. Rather, the patent literature demonstrates that sometimes it is and sometimes it is not. Because the flexibility of nylon is variable, Matukas' failure to state that its nylon plunger is flexible means that Matukas did not teach that the nylon plunger is flexible. Rather, the skilled artisan would generally understand that a plunger is generally considered to be rigid, as syringe walls are generally considered to be rigid.

Therefore, the Examiner's proposed combination of Bhatnagar and Matukas fail to arrive at the present invention due to the lack of a flexible plunger.

Therefore, the present rejection should be withdrawn.

**In the December 17, 2009 Rejection,** the Examiner found this reasoning unpersuasive solely because "Cannula 44 of Bhatnagar et al. is adapted to be seated in a vertebral body via tube 12."

**In this RCE,** Applicants maintain their positions set out in the September 2009 Amendment, namely that a) the Bhatnagar cannula identified by the Examiner as element 44 is not adapted to be received in a vertebral body, and b) neither reference discloses a flexible plunger.

With respect to the Bhatnagar cannula 44, Applicants respectfully submit that an item that is "seated" in bone resides at least partially beneath the surface of the bone. Since no part of cannula 44 of Bhatnagar is at least partially beneath the surface of the bone, cannula 44 of Bhatnagar is not seated in the vertebral body, as required by the claims.

Applicants respectfully submit that the Examiner's construction of the word "seated" that includes items (such as cannula 44) that are fortuitously connected to the partially submerged item (such as tube 12) is so unconventional as to meaningfully stray from the commonly accepted meaning of the phrase "seated". Accordingly, Applicants respectfully request the Examiner to provide evidence that common constructions of the term "seated" include such expansive usage.

With respect to the flexible plunger, Applicants note that the Examiner has failed to respond to the Applicants' flexible plunger arguments set forth in the Sept. 2009 Amendment, and respectfully request the examiner to respond to the Applicants' flexible plunger arguments set forth in the Sept. 2009 Amendment. In particular, Applicants respectfully request the Examiner to point to the column and lines wherein Matukas states that the plunger is made of a "flexible material".

For these reasons, the present rejection should be withdrawn.

Please provide any extensions of time which may be necessary and charge any fees which may be due to Deposit Account No. 10-0750/DEP5164/TMD, but do not include any payment of issue fees.

Respectfully submitted,

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